

REMARKS

In response to the Office Action dated July 3, 2002, claims 11 and 13 are amended. Claims 1-29 are now active in this application. No new matter has been added.

The indication that the subject matter of claims 22-25 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph, set forth in the Office Action and to include all of the limitations of the base claim and any intervening claims is noted with appreciation.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 11-29 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In support of this position, the Examiner maintains that use of "or" in claims 11 and 13 renders the claims indefinite. However, claims 11 and 13 do not specifically recite "or", but do recite "said image forming element(s)". If this is the language that the Examiner objects to, Applicants wish to point out that alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims (see §2173.05(h) of the M.P.E. - Alternative Limitations). Clearly, if the alternative is either a singular image forming elements or plural image forming elements, there is believed to be no uncertainty or ambiguity with respect to the question of scope or clarity of the claims.

At any rate, claims 11 and 13 are amended to eliminate use of "element(s)" and to recite the invention with the degree of precision and particularity required by the statute. Therefore, it is respectfully urged that the rejection be withdrawn.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

I. Claims 11-13, 20, 21 and 26-29 are rejected under 35 U.S.C. §102(b) as being anticipated by Umeda (JP# 06-67141).

The rejections are respectfully traversed.

In the image forming apparatus as defined in claim 11, a standard mode is set. In the image forming apparatus as defined in claim 13, a desired standard mode is set by an operator by operating the standard mode setting device.

In either of claims 11 and 13, **if a medium not corresponding to the standard mode** is supplied during the formation of image according to standard mode, the element switching device can switch the standard state setting of image forming element(s) to non-standard state setting.

In view of this structure, even if a medium not corresponding to the standard mode is inadvertently mixed with mediums corresponding to the standard mode and is supplied, at least one of the image forming elements can be switched for the medium (see the specification, paragraphs [0338], [0440], [0442] etc. and Figures 4(B) and 8(b)).

However, presumably the apparatus of Umeda would not switch the image forming element(s), for example, even if the sheet 1 is erroneously mixed in the hopper 25 accommodating the mediums 27.

More specifically, there is no disclosure or suggestion in Umeda as to the fact that either image formation on the normal type medium or image formation on the reversible type medium can be a standard mode as recited in claim 11, and as to the standard mode setting device as recited in claim 13.

In view of the above, it is believed clear that Umeda does not disclose or suggest the inventions recited in independent claims 11, 13, as well as claims 20, 26 and 28 depending from claim 11, and claims 21, 27 and 29 depending from claims 11 and 13.

II. Claims 1-10 and 14-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Umeda (JP# 06-67141) in view of Ito.

The Examiner admits that Umeda does not disclose the element for switching between the normal image forming medium and the reversible image forming medium mode being a switch on the sheet feeder. Ito is relied upon to teach an image forming apparatus wherein a plurality of sheet feeders 20, 21 are provided having switches 401-404 and 410-417 for detecting the type of sheet in each feeder. The Examiner maintains it would have been obvious to a person of ordinary skill in the art to modify the arrangement of Umeda with the teaching of Ito for determining what type of sheet is in what cassette because manual manipulation/designation can be eliminated which is desirable.

The rejections are respectfully traversed.

Claim 1 recites, *inter alia*:

a medium type detecting device for detecting whether an image display medium to be used for image formation is the normal image display medium or the reversible image display medium, wherein

the image formation on the normal image display medium by the first image forming portion is allowed when the medium type detecting device detects the normal type of the image display medium, and the image formation on the reversible image display medium by the second image forming portion is allowed when the medium type detecting device detects the reversible type of the image display medium.

In Umeda, there is no disclosure or suggestion that there are any detectors at all, let alone a detector(s) for detection a *normal* or *reversible image display medium*. More specifically,

Umeda does not disclose a medium type detection device for detecting whether an image display medium is a normal type medium or reversible type medium. Indeed Umeda describes the 4th embodiment (Fig. 4) as using a hopper 25 accommodating one kind of medium and a hopper 26 accommodating another kind of medium. However, the type of medium on which an image is formed is selected according to the instructions from a computer, or the like, disposed outside the image forming apparatus. In other words, Umeda merely discloses the following:

The hopper 25 is used to contain mediums of predetermined kind, e.g., paper mediums 27 for forming a toner image, while the hopper 26 is used to contain sheets 1 having a liquid crystal composite film (i.e., the type of medium in the hoppers is known). Of these mediums in hoppers 25 and 26, any one is selected by the computer or the like.

More specifically, Umeda merely discloses that a signal from information processor, such as a computer, performs selection of hoppers 25 and 26. There is no disclosure or suggestion in Umeda of detecting of the type of record-medium sheets in hopper 25 or hopper 26 and then using the detected type record-medium sheets to allocate the type of image formation that is allowed. Thus, there is nothing in Umeda or Ito that corresponds to allowing the image formation on the normal image display medium by the first image forming portion *when the medium type detecting device detects the normal type of the image display medium*, and allowing the image formation on the reversible image display medium by the second image forming portion *when the medium type detecting device detects the reversible type of the image display medium*.

Furthermore, given the fact that in Umeda the type of record-medium sheets that hoppers 25 and 26 hold is known, and the fact that any one of the mediums in hoppers 25 and 26 is selected by the computer, or the like, there is no realistic motivation as to why a person of

ordinary skill in the art would provide, in Umeda, a device for detecting the kind of medium accommodated in the hopper, as in the present invention. Therefore, it is clear that Umeda neither discloses nor suggests the *medium type detection device* used in the present invention, and that a person of ordinary skill in the art would have no realistic motivation to provide such *medium type detection device*.

Furthermore, as recited in claim 1, the medium type detecting device detects whether an image display medium to be used for image formation is the *normal image display medium* or the *reversible image display medium*. Attention is directed to the paragraph [0009] on page 3 of the specification where it is described "... form images on normal image display mediums such as normal paper sheets as well as reversible (i.e., image-writable, image-erasable and image-rewritable) image display mediums ..." Reversible image display mediums are a particular type of image display medium that is clearly defined in the specification. Furthermore, the present specification also has a detailed description of different devices that can be used to detect such *reversible image display medium*.

Given such detailed description, it is unreasonable for the Examiner to maintain that the detection switches 401-404 and 410-417 of Ito correspond to the medium type detecting device recited in claim 1. More specifically, detection switches 401-404 are paper color detection switches and detection switches 410-417 are paper size detection switches. There is no disclosure or suggestion in Ito that detection switches 401-404 could detect anything other than color or that detection switches 410-417 could detect anything other than size, and surely there is no disclosure or suggestion that these detection switches could detect a *normal* or *reversible image display medium*.

Claims 14 and 15 have similar type of detectors. Consequently, independent claim 1, claims 2-10 depending from claim 1, claims 14 and 15, claims 16 and 18 depending from claim 14, and claims 17 and 19 depending from claim 15 are patentable over Umdea and Itoh, considered alone or in combination.

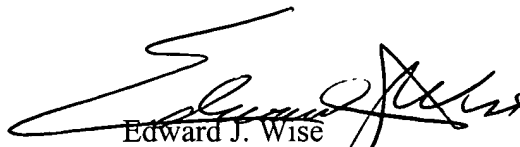
CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CHANGES MADE

Please amend claims 11 and 13 as follows:

11. (Amended) An image forming apparatus comprising:

a first image forming portion for forming an image on a normal image display medium;

a second image forming portion for forming an image on a reversible image display medium; and

an element setting switching device for switching setting of at least one of image forming elements of said first and second image forming portions, wherein

a standard mode is determined to perform the image formation on the normal image display medium or the image formation on the reversible image display medium, and at least one of the image forming elements of said first and second image forming portions is set to a standard state in the standard mode for forming an image on the normal image display medium or the reversible image display medium corresponding to the standard mode, and

said element setting switching device can switch and set the standard state setting of said at least one of the image forming elements [element(s)] to a non-standard state for forming an image on the image display medium not corresponding to the standard mode when the image formation is to be effected on the image display medium not corresponding to the standard mode.

13. (Amended) An image forming apparatus comprising:

a first image forming portion for forming an image on a normal image display medium;

a second image forming portion for forming an image on a reversible image display medium;

a standard mode setting device for selecting, as a standard mode, the image formation on the normal image display medium or the image formation on the reversible image display medium, and setting at least one of image forming elements of said first and second image forming portions to a standard state for forming an image on the image display medium corresponding to the standard mode; and

an element setting switching device for switching and setting the standard state setting of [the] said at least one of the image forming elements [element(s)] to a non-standard state for image formation on the image display medium not corresponding to the standard mode when the image formation is to be effected on the image display medium not corresponding to the standard mode.